

I. AMENDMENTS TO THE CLAIMS.

1. (currently amended) A computer implemented method for an analysis of installing a plurality of software components prior to deployment, comprising:

using a data structure in a storage that provides, for each of the plurality of software components, a component deployment dependency data, an indication of necessary components for an operation of each of the plurality of software components being installed, and an indication of incompatibility with a previously installed component,

using a computer connected to the storage and a program installed in a memory of the computer, performing the steps of:

determining a first plurality of components previously installed on the system;

determining a second plurality of components to be installed on the system;

accessing a third plurality of component deployment dependency data;

determining a fourth plurality of components suitable for parallel installation; and

determining an order in which the fourth plurality of components can be grouped for a fifth plurality of parallel installations;

accessing a sixth plurality of metadata from the data structure regarding the second plurality of components to be installed and accessing a seventh plurality of data regarding the first plurality of components previously installed; and

analyzing the sixth plurality of metadata to determine an eighth plurality of potential conflicts between the second plurality of components to be installed and the first plurality of components previously installed on the system;

wherein the pre-deployment analysis allows the second plurality of components to be installed in parallel and in a sequence of groups, whereby an installation time is reduced.

~~identifying components previously installed on a system;~~

~~identifying components to be installed on the system; and~~

~~identifying any potential conflicts between a previously installed component and a component to be installed.~~

2. Cancelled.

3. (currently amended) The method of claim 21, further comprising updating the ~~semantic model~~
data structure with the identity of ~~newly a ninth plurality of recently installed components.~~

4. (currently amended) The method of claim 1, further comprising providing a user with a
plurality of options if ~~a conflict is identified~~ for the eighth plurality of potential conflicts.

5. (currently amended) The method of claim 4, wherein a first option includes aborting ~~the an~~
installation.

6. (currently amended) The method of claim 4, wherein a second option includes continuing
the installation.

7. (currently amended) The method of claim 6, further including, upon the exercise of the
second option, recording an entry in a log indicative of ~~the~~ conflict and of ~~the~~ continuation of
installation.

8. (currently amended) The method of claim 1, further comprising:
initiating a removal of a component from the system; and
identifying a tenth plurality of remaining components which depend on the
component to be removed.

9. (currently amended) The method of claim 8, further comprising providing a user with a
plurality of options if ~~a~~ the tenth plurality of dependent remaining components is identified.

10. (currently amended) The method of claim 9, wherein a first option includes aborting ~~the~~
removal.

11. (currently amended) The method of claim 9, wherein a second option includes continuing
~~the~~ removal.

12. (currently amended) The method of claim 8, further comprising:

identifying a first component previously installed on the system which is dependent upon a removed component; and

determining ~~indicating the~~ identity of a second component upon which the first component depends.

13. (currently amended) The method of claim 12, further comprising:

installing the second component upon which the first component depends; and

creating a dependency link between the first component and the second components.

14. (currently amended) A system for an analysis of a plurality of software components to be conducted before installing the plurality of software components, comprising:

using a data structure in a storage that provides, for each of the plurality of software components, a component deployment dependency data, an identification of necessary components for an operation of each of the plurality of software components to be installed, and an identification of incompatibility with a previously installed component,

using a computer connected to the storage and a system, and a program installed in a memory of the computer,

means for determining a first plurality of components previously installed on the system;

means for determining a second plurality of components to be installed on the system;

means for accessing a third plurality of component deployment dependency data;
means for determining a fourth plurality of components suitable for parallel installation; and

means for determining an order in which the fourth plurality of components can be grouped for a fifth plurality of parallel installations;

means for accessing a sixth plurality of metadata from the data structure regarding the second plurality of components to be installed and accessing a seventh plurality of data regarding the first plurality of components previously installed; and

means for analyzing the sixth plurality of metadata to determine an eighth plurality of potential conflicts between the second plurality of components to be installed and the first plurality of components previously installed on the system;

wherein the pre-deployment analysis allows the second plurality of components to be installed in parallel and in a sequence of groups whereby an installation time is reduced.

~~means for identifying components previously installed on a system;~~

~~means for identifying components to be installed on the system; and~~

~~means for identifying any potential conflicts between a previously installed component and a component to be installed~~

15. Cancelled.

16. (currently amended) The system of claim 15, further comprising a means for loading an installation package including the semantic model data structure.

17. (currently amended) The system of claim 14, further comprising a data structure comprising a ninth plurality of references among the components to be installed and located in the data structure.

18. (currently amended) The system of claim 17, further comprising a means for accessing the data structure.

19. (currently amended) The system of claim 14, further comprising a means for installing the second plurality of components across a plurality of enterprise resources.

20. (currently amended) A data structure associated with a software component installation package adapted for execution on a computer, the data structure adapted for identifying a third plurality of potential conflicts between a second plurality of components to be installed on a

system and a first plurality of components previously installed on the system ~~component~~
~~incompatibilities~~, comprising:

for each of the second plurality of software components, a component deployment
dependency data, an indication of necessary components for an operation of each of the second
plurality of software components, and an indication of incompatibility with one or more
components of the first plurality of components ~~an entry for each component previously installed~~
~~on a system; and~~

~~references associated with each previously component identifying any conflicting~~
~~component to be installed;~~

~~whereby wherein an alert is automatically generated if an attempt is made to install a~~
~~component having an indication of incompatibility~~ ~~conflicting component.~~

21. (currently amended) A computer program product of a computer-readable medium usable
with a programmable computer, the computer program product having computer-readable code
embodied therein for pre-deployment analysis of installing software components, the computer-
readable code comprising instructions for:

~~identifying components previously installed on a system;~~
~~identifying components to be installed on the system; and~~
~~identifying any potential conflicts between a previously installed component and a~~
~~component to be installed.~~

determining a first plurality of components previously installed on the system;
determining a second plurality of components to be installed on the system;
accessing a third plurality of component deployment dependency data;
determining a fourth plurality of components suitable for parallel installation; and
determining an order in which the fourth plurality of components can be grouped
for a fifth plurality of parallel installations;

accessing a sixth plurality of metadata from the data structure regarding the
second plurality of components to be installed and accessing a seventh plurality of data regarding
the first plurality of components previously installed; and

analyzing the sixth plurality of metadata to determine an eighth plurality of potential conflicts between the second plurality of components to be installed and the first plurality of components previously installed on the system;

wherein the pre-deployment analysis allows the second plurality of components to be installed in parallel and in a sequence of groups, whereby an installation time is reduced.

22. Cancelled.

23. (Currently amended) The computer program product of claim 22, further comprising instructions for updating the semantic model data structure with ~~the~~an identity of a ninth plurality of recently newly installed components.

24. (Currently amended) The computer program product of claim 21, further comprising instructions for providing a user with a plurality of options if a conflict is identified.

25. (Currently amended) The computer program product of claim 24, wherein a first option includes aborting ~~the~~an installation.

26. (Currently amended) The computer program product of claim 24, wherein a second option includes continuing ~~the~~an installation.

27. (Currently amended) The computer program product of claim 26, further including instructions for, upon the exercise of the second option, recording an entry in a log indicative of the conflict and of ~~the~~a continuation of the installation.

28. (Currently amended) The computer program product of claim 21, further comprising instructions for:

initiating a removal of a component from the system; and

identifying a plurality of remaining components which depend on the component to be removed.

29. (Original) The computer program product of claim 28, further comprising instructions for providing a user with a plurality of options if a dependent remaining component is identified.

30. (Original) The computer program product of claim 29, wherein a first option includes aborting the removal.

31. (Original) The computer program product of claim 29, wherein a second option includes continuing the removal.

32. (Original) The computer program product of claim 28, further comprising instructions for:
identifying a first component previously installed on the system which is
dependent upon a removed component; and
indicating the identity of a second component upon which the first component
depends.

33. (Original) The computer program product of claim 32, further comprising instructions for:
installing the second component upon which the first component depends; and
creating a dependency link between the first and second components.

34. (Currently amended) A method for installing software components based upon a pre-installation analysis, comprising:
loading an installation package, the installation package including a ~~component compatibility~~ data structure;
searching a target to which components are to be installed to identify a plurality of previously installed components;
for a first component, accessing, in the ~~component compatibility~~ data structure, the ~~component~~ a component deployment dependency data, an indication of necessary components for an operation of the first component, and an indication of incompatibility with a previously installed component;
analyzing a plurality of data from the data structure to determine a plurality of conflicts between the first component to be installed and the plurality of components

~~previously installed on the system; compatibility data structure comprising, for each component A to be installed, a reference to any installed component with which the component A may conflict; and~~

~~determining whether a conflict is detected.~~

35. (Original) The method of claim 34, further comprising notifying a user of the conflict.

36. (Original) The method of claim 34, further comprising aborting the installation if a conflict is detected.

37. (Original) The method of claim 34, further comprising ignoring a detected conflict and continuing the installation.

38. (Original) The method of claim 37, further comprising entering a note in a log of the conflict.

39. (Currently amended) The method of claim 34, further comprising:
initiating the removal of an installed component;
accessing the ~~component compatability~~ data structure; and
identifying a conflict if the installed component is removed.

40. (Currently amended) The method of claim 34, further comprising:
initiating an installation of a second component-B;
searching a target to which the second component-B is to be installed to identify installed components;
accessing the component compatability data structure; and
determining if all of the components required by the second component B are installed.

II. AMENDMENT TO THE DRAWINGS

A replacement sheet is attached for FIG. 3 stating in the top margin "Replacement Sheet."

A replacement sheet is attached with FIG. 1A corrected to state "Prior Art" and to state in the top margin "Replacement Sheet."